W on the west shall, at the time of filing such application with the Commission, simultaneously notify the Director, National Radio Astronomy Observatory, P.O. Box NZ2, Green Bank, West Virginia, 24944, in writing, of the technical particulars of the proposed station. Such notification shall include the geographical coordinates of the antenna, antenna height, antenna directivity if any, frequency, type of emission, and power. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Observatory. After receipt of such applications, the Commission will allow a period of twenty (20) days for comments or objections in response to the notifications indicated. If an objection to the proposed operation is received during the twenty-day period from the National Radio Astronomy Observatory for itself or on behalf of the Naval Radio Research Observatory, the Commission will consider all aspects of the problem and take whatever action is deemed appropriate.

§ 5.93 Limited market studies.

Unless otherwise stated in the instrument of authorization, licenses granted for the purpose of limited market studies pursuant to §5.3(j) of this part are subject to the following conditions:

- (a) All transmitting and/or receiving equipment used in the study shall be owned by the licensee.
- (b) The licensee is responsible for informing anyone participating in the experiment that the service or device is granted under an experimental authorization and is strictly temporary.
- (c) The size and scope of the experiment are subject to limitations as the Commission shall establish on a case-by-case basis. If the Commission subsequently determines that a market study is not so limited, the study shall be immediately terminated.

Subpart C— Technical Standards and Operating Requirements

§5.101 Frequency stability.

An applicant must propose to use a frequency tolerance that would confine emissions within the band of operation, unless permission is granted to use a greater frequency tolerance. Equip-

ment is presumed to operate over the temperature range -20 to +50 degrees celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

§ 5.103 Types of emission.

Stations in the Experimental Radio Service may be authorized to use any of the classifications of emissions covered in part 2 of this chapter.

§5.105 Authorized bandwidth.

Each authorization issued to a station operating in this service will show, as the prefix to the emission classification, a figure specifying the maximum necessary bandwidth for the emission used. The authorized bandwidth is considered to be the occupied or necessary bandwidth, whichever is greater. This bandwidth should be determined in accordance with §2.202 of this chapter.

[63 FR 64202, Nov. 19, 1998; 64 FR 43095, Aug. 9, 1999]

§ 5.107 Transmitter control requirements.

Each licensee shall be responsible for maintaining control of the transmitter authorized under its station authorization. This includes both ensuring that transmissions are in conformance with the operating characteristics prescribed in the station authorization and that the station is operated only by persons duly authorized by the licensee.

§ 5.109 Antenna and tower requirements.

- (a) Applicants with fixed stations that use antennas that exceed 6 meters in height above the ground level or more than 6 meters in height above an existing building must comply with the requirements of part 17 of this chapter.
- (b) The licensee of any radio station that has an antenna structure required to be painted and illuminated pursuant to the provisions of section 303(q) of the Communications Act of 1934, as amended, and part 17 of this chapter, shall perform the inspections and maintain the tower marking and lighting, and associated control equipment,

§5.111

in accordance with the requirements of part 17, subpart C, of this chapter.

[63 FR 64202, Nov. 19, 1998; 64 FR 43095, Aug. 9, 1999]

§5.111 General limitations on use.

- (a) The following transmission limitations are applicable to all classes of stations in the Experimental Radio Service:
- (1) Stations may make only such transmissions as are necessary and directly related to the conduct of the licensee's stated program of experimentation as specified in the application for license and the related station instrument of authorization, and as governed by the provisions of the rules and regulations contained in this part. All transmissions shall be limited to the minimum practical transmission time.
- (2) When transmitting, the licensee must use every precaution to ensure that the radio frequency energy emitted will not cause harmful interference to the services carried on by stations operating in accordance with the Table of Frequency Allocations of part 2 of this chapter and, further, that the power radiated is reduced to the lowest practical value consistent with the program of experimentation for which the station authorization is granted. If harmful interference to an established radio service develops, the licensee shall cease transmissions and such transmissions shall not be resumed until it is certain that harmful interference will not be caused.
- (b) If experimental stations are to be used to retransmit signals of any other station or to render any communications service to third parties, a full disclosure of this must be made in the application for license.

§5.113 Adherence to program of research.

- (a) The program of experimentation as stated by an applicant in its application for license or in the station instrument of authorization, shall be substantially adhered to unless the licensee is authorized to do otherwise by the Commission.
- (b) Where some phases of the experimental program are not covered by the general rules of the Commission or by the rules of this part, the Commission

may specify supplemental or additional requirements or conditions in each case as deemed necessary in the public interest, convenience, or necessity.

§5.115 Station identification.

Each class of station in the experimental services shall, unless specifically exempted by the terms of the station authorization, transmit its assigned call sign at the end of each complete transmission: Provided, however, that the transmission of the call sign at the end of each transmission is not required for projects requiring continuous, frequent, or extended use of the transmitting apparatus, if, during such periods and in connection with such use, the call sign is transmitted at least once every thirty minutes. The station identification shall be transmitted in clear voice or Morse code. All digital encoding and digital modulation shall be disabled during station identification.

§ 5.117 Suspension of transmission required.

The radiations of the transmitter shall be suspended immediately upon detection or notification of a deviation from the technical requirements of the station authorization until such deviation is corrected, except for transmissions concerning the immediate safety of life or property, in which case the transmissions shall be suspended as soon as the emergency is terminated.

§5.119 Posting station licenses.

The current original authorization for each station shall be retained as a permanent part of the station records but need not be posted.

§5.121 Retention of station records.

Records required to be kept by this part shall be retained for a period of at least one year.

§5.123 Inspection of stations.

All stations and records of stations in the Experimental Radio Service shall be made available for inspection at any time while the station is in operation or shall be made available for inspection upon reasonable request of an authorized representative of the Commission.